"The Origin of *Capsella arachnoidea*" (with lantern), Henri Hus.

*"The Antitoxic Action of Chloral Hydrate upon Copper Sulphate for Pea Seedlings," R. P. Hibbard.

*"Improved Methods for the Quantitative Determination of Dilute Solutions of Electrolytes," R. P. Hibbard.

"Effect of Illumination on the Twining of Plants," F. C. Newcombe.

"Conditions for the Diageotropism of *Asparagus plumosus*," Margaretta Packard.

"A Heteroprophic Mycorhiza" (with lantern), Walter B. McDougall.

*"Some Notes on the Black Knot of Plums," J. A. McClintock.

"Some Further Observations on *Sclerotinia*," J. B. Pollock.

"A Sand-binding Fungus," J. B. Pollock.

"The Relic Dunes of Little Point Sable" (with lantern), W. E. Praeger.

*"The Pine Hills at Lowell, Mich." (with lantern), Bert E. Quick.

"Plants observed on Mackinac Island in 1912," C. K. Dodge.

*"The Flora of Parkdale Farm, Rochester, Mich.," O. A. Farwell.

"The Early Extent of Prairies in Southern Michigan," H. A. Gleason.

*"Notes on a Few Plants from the Vicinity of Ann Arbor," H. A. Gleason.

*"Car-window Notes on the Vegetation of the Upper Peninsula," R. M. Harper. Read by H. A. Gleason.

*"Permanent Vegetation Quadrats at Douglas Lake," Ada K. Dietz.

*"Rôle of Vegetation of a Mill Pond" (with lantern), F. A. Loew.

*"Key to the Species and Varieties of *Solidago*, in Michigan," C. H. Otis.

*"An Easy Formula for Obtaining Alcohols of any Strength," Richard de Zeeuw.

"Lipolytic Action in a Rust," G. H. Coons.

"Soft Rot of the Hyacinth," G. H. Coons.

RICHARD DE ZEEUW,
Secretary

EAST LANSING, MICH.

SOCIETIES AND ACADEMIES

THE BOTANICAL SOCIETY OF WASHINGTON

THE eighty-ninth regular meeting of the Botanical Society of Washington was held in Assembly Hall of the Cosmos Club, at 8 P.M., Tuesday, May 6, 1913, with twenty-four members and two guests present.

The following papers were presented:

The Effect of the Recent Freeze in California (with lantern): Dr. DAVID GRIFFITHS.

Dr. Griffiths discussed the effect of the January freeze on vegetation of the southwest, with special reference to California. The main regions where tropical and subtropical things are being grown were visited. He showed 40 slides made from negatives taken in February and March, showing injuries to citrus fruits, avocados, cherimoyas, mangoes, carobs, acacias, olives, eucalyptus, etc.

While the temperatures were unusually low, there are indications that they have been lower in the remote past. That such cold spells of weather are very infrequent is proved by the fact that such natives as *Rhus laurina*, eriogonums and other natives in California, and the giant *Cereus, cholla, Celtis, Olneya*, etc., in southern Arizona, are severely injured. Many introduced trees which have attained a diameter of three feet have been killed outright.

Injuries were very severe throughout all of the citrus regions, but even where the temperatures went to 10–17° F. in general throughout a region, an occasional orchard situated upon an abrupt elevation above the general plain escaped with even unfrozen fruit. Owing to differences in elevation, air-drainage and exposures, conditions are exceedingly varied and present some of the most important problems in connection with the relation of climatic conditions to crop development. At no time in the present generation has there been such an opportunity to determine the adaptability of the scores of introduced plants of the Pacific Coast region. Through some of the various agencies operating in agricultural lines a careful survey should be made the present season to systematize and place on record the results of a condition which, although of infrequent occurrence, is nevertheless of the utmost scientific and economic import.

The Method of Types Applied to the Nickernut: Mr. H. C. SKEELS.

Mr. Skeels called attention to the last sentence of division (*e*) under Canon 15 of the American Code of Botanical Nomenclature, which reads as follows: "The genera of Linnæus's Species Plantarum (1753) are to be typified through the citations given in his Genera Plantarum (1754)." Under this clause the following genera were mentioned:

Genus	Type Species	Now Referred to
Alpinia	*A. racemosa*	*Renealmia*
Cerbera	*C. ahouaj*	*Thevetia*
Cratægus	*C. aria*	*Sorbus*
Cucurbita	*C. lagenaria*	*Lagenaria*
Glycine	*G. apios*	*Apios*
Hibiscus	*H. malvaviscus*	*Malvaviscus*
Jatropha	*J. manihot*	*Manihot*
Medicago	*M. radiata*	*Trigonella*

Applying the method of types to the nickernut, Mr. Skeels called attention to Mr. Trimen's identifications of the Flora Zeylanica specimens which are published in Vol. 24 of *The Journal of the Linnean Society, Botany.* On the basis of these identifications, Mr. Skeels concluded as follows:

"In conclusion, going back to our three original species, the 'Catti kitsjil' of the East Indies, the *Cæsalpinia nuga* (L.) Aiton of the floras, under the method of types of the American Code, becomes *Cæsalpinia crista* L., the type being Fl. Zeyl. 157. The common gray-seeded nickernut, generally known as *Cæsalpinia* or *Guilandina bonducella,* becomes *Guilandina bonduc* L., the type being Fl. Zeyl. 156. And the yellow-seeded, large-leafletted nickernut, generally known as *Guillandina bonduc,* becomes *Guilandina major* (DC.) Small, being based through De Candolle, on *Guilandina bonduc* L. Species Plantarum, ed. 2."

What would be the Effect of the Arctic Night on Tropical or Subtropical Vegetation? Dr. F. H. Knowlton.

Dr. Knowlton called attention to the ancient floras of the North Polar region. Many of the fossil plants found there are of a tropical or subtropical character. No satisfactory explanation of the relation of such plants to the conditions of light and darkness supposed to have prevailed has been found. Dr. Knowlton asked for suggestions from the members of the society and a brief discussion followed.

C. L. Shear,
Corresponding Secretary

PHILOSOPHICAL SOCIETY, UNIVERSITY OF VIRGINIA
MATHEMATICAL AND SCIENTIFIC SECTION

The eighth regular meeting of the session of 1912–13 of the Mathematical and Scientific Section was held May 19.

Professor R. M. Bird read a paper by himself and Mr. W. S. Calcott on "Some Studies of Chemical Reactions, which may be Connected with the Constant Association of Vanadium Sulphide with Sulphur-bearing Petrols and Asphalts."

Mr. Justus M. Cline presented a paper by himself and Professor Thos. L. Watson on "The Drainage Changes in the Shenandoah Valley Region in Virginia."

Professor Thos. L. Watson read a paper entitled "A Meteoric Iron from Paulding County, Georgia."

Professor Chas. N. Wunder read a paper on "A Photometric Survey of the Stars of the Huygenian Region of the Great Nebula of Orion."

Professor W. H. Echols read by title a paper "On the Expansion of a Function in Terms of Rational Functions." This paper will be read at the regular meeting in October.

Wm. A. Kepner,
Secretary

University of Virginia

SCIENCE CLUB OF THE UNIVERSITY OF WISCONSIN

At the 125th regular meeting of the club, held April 17, 1913, Dr. A. S. Loevenhart, of the department of pharmacology of the University of Wisconsin, presented a paper on "The Relation of Oxidative Processes in the Central Nervous System to Stimulation and Depression."

The observed effects of asphyxia are, in the order of occurrence, stimulation, depression, paralysis, death. By using carbon monoxide, hydrocyanic acid and other drugs that inhibit the oxygen-carrying power of the blood without interfering with the elimination of carbon dioxide, and by reducing the time of the experiment so much that no accumulation of acid products is possible, it is found that decrease of oxidation *per se* is responsible for the initial stimulation observed in asphyxia.

Increased oxidation, secured by the use of certain derivatives of iodbenzoic acid, results in suspension of respiration and other evidences of depression of the central nervous system.

Anesthesia is a case of secondary depression resulting from decreased oxidation as opposed to depression from increased oxidation, which is probably the condition occurring in sleep. A "safe" anesthetic is therefore an impossibility, since the function of an anesthetic is to hold bodily oxidation down in the region of depression between stimulation and death.

The lecture was illustrated with a number of diagrams from automatic recording apparatus, and some pieces of apparatus that had been specially designed or improved in connection with the investigation.

Eric R. Miller,
Secretary